

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (original) A positive-working radiation-sensitive composition comprising:
 - (a) a polymer capable of being dissolved in an alkaline aqueous solution; and
 - (b) a development-enhancing compound that increases the rate at which said composition dissolves in said solution after exposure to radiation, said compound comprising a hydrogen bond-substituting compound.

2. (original) A positive-working radiation-sensitive composition comprising:
 - (a) a polymer capable of being dissolved in an alkaline aqueous solution; and
 - (b) a development-enhancing compound that increases the rate at which said composition can dissolve in said solution after exposure to radiation, said compound containing a functional group that is at least one of an alcohol, a phenolic hydroxyl, a carboxyl, a carboxylate, a thiol, a thiophenol, a thioacid and its salts, an amine, an imine, an amine oxide, an amide, an imide, a phosphorous-containing ester or amide, a phosphorus-containing quaternary ammonium salt, a polysiloxane having free hydroxyl groups, an organic or inorganic lithium salt and a fluorine-containing radical.

3. (original) A composition according to claim 2, wherein said development-enhancing compound is selected from the group consisting of:
 - (a) an alcohol having an alkyl radical of C₁₂ to C₆₀, a fluoroalkyl radical of C₄ to C₆₀ or a fluoroalkylaryl radical of C₇ to C₆₀;
 - (b) a C₃ to C₅₀₀ polyol;
 - (c) a dihydric phenol;
 - (d) a tri-hydric phenol;
 - (e) a lithium salt that is one of a carboxylate, thiocarboxylate, sulfate, sulfonate, phosphate, phosphite, nitrate and nitrite; and
 - (f) a phosphorous-containing ester, amide or quaternary ammonium salt having at least one free hydroxyl group.

4. (original) A composition according to claim 3, wherein said dihydric alcohol is resorcinol.

5. (original) A composition according to claim 3, wherein said dihydric alcohol is one of 4-hexylresorcinol and n-dodecylresorcinol.

6. (original) A composition according to claim 3, wherein said dihydric alcohol is one of catechol and an alkyl catechol.

Claims 7-13 (canceled).

14. (original) A composition according to claim 2, further including a converter substance capable of converting radiation into heat.

15. (original) A composition according to claim 14, wherein the radiation is at least one of light and infrared light.

16. (original) A composition according to claim 15, wherein the converter substance is at least one of a pigment and an infrared dye.

17. (original) A composition according to claim 16, wherein the pigment is at least one of carbon black, a phthalocyanine compound and a metal oxide and the dye is at least one of a cyanine dye, a methine dye, a naphthaquinone dye, a squarylium dye and a pyrylium dye.

18. (original) A composition according to claim 2, wherein the polymer is at least one of:

- (a) an acetal resin, and
- (b) a polymer having at least one of a phenolic hydroxyl group, a sulfonamide group and an active imide group.

Claim 19 (canceled).

20. (original) A composition according to claim 2, further comprising a compound that reduces the solubility of the polymer in the alkaline aqueous solution.

21. (original) A composition according to claim 20, wherein the compound that reduces the solubility of the polymer in the solution is at least one of an infrared dye and an image colorant.

22. (original) A composition according to claim 21, wherein the image colorant is one of Victoria Pure Blue BO and the tetrafluoroborate salt of Basic Blue 7.

Claims 23-26 (canceled).

27. (original) A positive-working lithographic printing precursor comprising:

- (a) a hydrophilic lithographic base, and
- (b) a radiation-sensitive coating on a surface of the base, the coating comprising:
 - (i) a polymer capable of being dissolved in an alkaline aqueous solution; and
 - (ii) a development-enhancing compound that increases the rate at which said coating dissolves in said solution after exposure to radiation, said compound containing a functional group that is at least one of an alcohol, a phenolic hydroxyl, a carboxyl, a carboxylate, a thiol, a thiophenol, a thioacid and its salts, an amine, an imine, an amine oxide, an amide, an imide, a phosphorous-containing ester or amide, a phosphorous-containing quaternary ammonium salt, a polysiloxane having free hydroxyl groups, an organic or inorganic lithium salt and a fluorine-containing radical,

wherein the radiation-sensitive coating becomes more soluble in said alkaline aqueous solution after exposure to radiation.

28. (original) A precursor according to claim 27, wherein said development-enhancing compound is selected from the group consisting of:

- (a) an alcohol having an alkyl radical of C₁₂ to C₆₀, a fluoroalkyl radical of C₄ to C₆₀ or a fluoroalkylaryl radical of C₇ to C₆₀;
- (b) a C₃ to C₅₀₀ polyol;

- (c) a dihydric phenol;
- (d) a tri-hydric phenol;
- (e) a lithium salt that is one of a carboxylate, thiocarboxylate, sulfate, sulfonate, phosphate, phosphite, nitrate and nitrite; and
- (f) a phosphorous-containing ester, amide or quaternary ammonium salt having a free hydroxyl group.

29. (original) A precursor according to claim 27, wherein said dihydric alcohol is resorcinol.

Claims 30-38 (canceled).

39. (original) A precursor according to claim 27, further including a converter substance capable of converting radiation into heat.

40. (original) A precursor according to claim 39, wherein the radiation is at least one of light and infrared light.

Claims 41-42 (canceled).

43. (original) A precursor according to claim 27, wherein the polymer is at least one of:

- (a) an acetal resin, and
- (b) a polymer having at least one of a phenolic hydroxyl group, a sulfonamide group and an active imide group.

Claims 44-76 (canceled).